

Pileus effused, broadly reflected, pale fawn-coloured, with one or two darker zones, clothed with rather spongy down behind, but in front radiato-striate; margin undulated, very thin. Hy-menium fawn-coloured, inclining to cinereous. Pores minute, angular; dissepiments thin.

A resupinate form occurs with the margin slightly reflected, and the pores darker and smaller.

Allied to *Pol. crispus*, but very distinct.

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XLII.—*Note on the Transverse Processes of the Two-toothed Dolphin (Hyperoodon bidens)*. By Prof. OWEN, F.R.S. &c.

Two kinds of 'transverse processes' are recognized in vertebrate skeletons answering to the parts defined by Soemmerring, in the human cervical vertebræ, as the 'radix prior, seu antica, e corpore, processus transversi,' and the 'radix postica, ex arcu, processus transversi': the so-called 'processus transversus' being now known to consist of a rudimental rib (pleurapophysis) confluent with the process from the body and the process from the arch. Such processes are more developed and better defined in the lower animals, where, instead of being 'anterior' and 'posterior,' they are 'inferior' and 'superior' transverse processes. I have proposed the single-worded term 'parapophysis' for the 'inferior transverse process' or 'radix antica,' &c., and 'diapophysis' for the 'superior transverse process' or 'radix postica,' &c.

The transverse processes in fishes are, as John Müller and others have shown, 'parapophyses'; those of Mammalia, where they occur as a single pair, are 'diapophyses.' The *Hyperoodon*, however, shows a structure which leads to the conclusion that the transverse processes of the vertebræ with one pair of such are 'parapophyses,' as in fishes.

In the first to the sixth pairs of thoracic ribs the head of the rib articulates with the interspace of the vertebral bodies (centrums) and to contiguous parapophysial tubercles; the tubercle of the rib articulates with a diapophysis from the base of the neural arch: in the seventh dorsal vertebra a well-marked parapophysis is developed from the centrum, for articulation with the head of the rib, the tubercle still articulating with the diapophysis above. In the eighth dorsal vertebra the diapophysis abruptly ceases to be developed; the tubercle of the rib, which was reduced in the seventh pair, also disappears; and the eighth rib articulates, like the ninth, by the head only to a progressively elongating parapophysis: the long transverse pro-

cesses from the succeeding lumbar and caudal vertebræ are plainly continuations of the parapophysial series.

This repetition of a piscine structure, although an exceptional one in the fish-like mammalia, has appeared to me to be so interesting a fact, as to be worth recording. I am not aware, at least, that it has been previously noticed.

XLIII. — *Remarks on Libellula Brodiei (Buckman), a Fossil Insect from the Upper Lias of Dumbleton, Gloucestershire.* By PROFESSOR BUCKMAN, F.G.S., F.L.S.

As our associate, the Rev. P. B. Brodie, is leaving this district, I have much pleasure in calling the attention of the Members of the Cotteswold Club to the interesting discoveries of fossil insects from the Lias, which he has principally made within the limits of our more immediate operations, namely in the county of Gloucester; and this I think right to do now with the more immediate object of settling a question of nomenclature, and in order that our 'Proceedings' may perpetuate his name as attached to one of the most beautiful and perfect specimens he has yet discovered, to whom the following remarks will show that it was originally dedicated. In order to render this the more clear, it will be necessary to state that while Mr. Brodie was prosecuting his inquiries in the *Lower Lias*, in a band of which, termed by him the 'Insect Limestone,' he succeeded in exhuming remains of almost every class of Insecta, I had the pleasure of finding among others a fine wing of *Libellula* in a thin band of limestone in the *Upper Lias*: this discovery was announced to the Geological Society in a short paper "On the occurrence of Remains of Insects in the Upper Lias of the county of Gloucester;" and in vol. iv. part 1. page 211 of the 'Proceedings' of the Geological Society will be found the following remarks:— "The remains of insects comprise one species of *Libellula*, which, from the reticulations of the fine wing, seems to belong to the genus *Æshna*, and has been named by Mr. Buckman *Æshna Brodiei* in honour of Mr. Brodie."

Between this (June 21, 1843) and the publication of the 2nd edition of the 'Outlines of the Geology of the neighbourhood of Cheltenham,' in 1845, I had the pleasure of discovering another fine wing, and this and the previous one were first figured in that work, tab. 8. figs. 1 & 2, with the following description:—

"Fig. 1. *Posterior* wing of *Æshna Brodiei*."

"Fig. 2. *Anterior* wing of ditto."

showing that I had arrived at the conclusion, that these two wings should both be referred to the same species.